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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/955,005	09/17/2001	Edward P. Wallerstein	XENOP004	7847

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EXAMINER

HASAN, MOHAMMED A

ART UNIT PAPER NUMBER

2873

DATE MAILED: 08/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/955,005

Applicant(s)

WALLERSTEIN ET AL.

Examiner

Mohammed Hasan

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1- 58 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 30 - 58 is/are allowed.
- 6) ☒ Claim(s) 1 - 4, 10 - 13, 25 is/are rejected.
- 7) ☒ Claim(s) 5 - 9, 14 - 24, 26 - 29 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 September 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Oath/Declaration

1. Oath and declaration filed on 9/17/2001 is accepted.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a) because they fail to show figure 2, a third lens group 102, as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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Claims 1 - 4 are rejected under 35 U.S.C. 102 (b) as being anticipated by Freedenberg et al (5,777,798).

Regarding claim 1, Freedenberg et al discloses (refer to figures 1 – 7) a finite conjugate lens system comprising in order from a camera side to an object side: a first lens group (100) , a second lens group (106) , where the first and or the second lens group are adapted so that when light is passed from the object side to an image side , a substantially sized region of collimated light is formed between the first and second lens group (column 3, lines 11 – 58) .

Regarding claim 2, Freedenberg et al discloses (refer to figures 1 – 7) where the first and second lens groups (106) are adapted to demagnify an object at the object side (column 3, lines 11 – 58) .

Regarding claim 3, Freedenberg et al discloses, the region of collimated light space is greater than about 25 mm (as shown in figure 1).

Regarding claim 4, Freedenberg et al discloses, where the region of collimated light space is adapted to receive one or more filter wheels (as shown in figure 1).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 10 – 13, and 25 are rejected under 35 U.S.C 103 (a) as being unpatentable over Freedenberg et al (5,777,798) in view of Horiuchi et al (6,037,972).

Regarding claims 10 – 13 and 25, as applied to claim 1, Freedenberg et al discloses all of the claimed limitations except imaging light received through the first and second lens group, the detector, a shutter and /or iris between the lens group, first and second lens group that emit minimum fluorescence.

Horiuchi et al discloses (refer to figures 1 and 2) light received through the first and second lens group, image sensor (13), a shutter or iris (4) between the lens group, and the first and second lens group emits minimum fluorescence (column 2, lines 58 – 63, column 3, lines 1 – 26).

It would have been obvious to one of ordinary skill in the art the time the invention was made to provide a light source, a detector and a shutter or iris in to the Freedenberg an optical system for the purpose of still image and the moving image can be picked up concurrently without the need of enlarging the camera as taught by Horiuchi et al (column 2, lines 8- 10).

Allowable Subject Matter

5. Claims 5 – 9, 14 – 24, 26 - 29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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6. The following is a statement of reasons for the indication of allowable subject matter: The prior art fails to show an image plane at the camera side having a diameter that is greater than 26 mm over which vignetting is less than or equal to 10%, a third lens group configured to provide a plurality of demagnification levels, the third lens group includes a plurality of lens sub-groups mounted on a turret, and each of sub lens – groups configured to provide a different demagnification level, a lens system comprising from a camera side to an object side the lens system satisfied the following conditions satisfied : $.9 < f / \# < 1.1$, $.90 < RI < 1.00$, where $f / \#$ and RI are focused number and relative illumination respectively, both the $f / \#$ and the RI being obtained across a field of view at an image plane at the camera side having a diameter greater than or equal to 26 mm , and both the $f / \#$ and RI being obtained for demagnifications of 1.25 through 10x , a detector, the shutter has a diameter is less than or equal to about 125 mm, the iris has maximum diameter is less than or equal to about 65 mm, iris has a maximum diameter range between 45 to 65 mm, the detector has a size that is about 26 by 26 mm, a back focal distance associated with the first lens group and the detector is greater than or equal to 14 mm, the first and a second lens group are configured to correct chromatic aberrations having a wavelength between 450 nm and 700 nm, polychromatic RMS spot radius that is less than or equal to 250 μm across a 26 mm diameter field of view, a maximum lens clear aperture of between 95 mm to 120 mm, first lens group comprises a meniscus doublet and a biconvex lens, the second lens group comprises meniscus doublet, two meniscus singlets, and a biconvex lens and the third lens group comprising in order from the camera side to the object side , a doublet,

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a singlet and adapted to provide demagnification level of either of 1.25 or 2.5 x and demagnification level of either 7.5x or 10x.

7. Claims 30 – 58 are allowed.

8. The following is an examiner's statement of reasons for allowance: The prior art taken either singularly or in a combination fails to anticipate or fairly suggest the limitations of the independent claims, in such a manner that a rejection under 35 U.S.C. 102 or 103 would be proper. The prior art fails to teach a combination of all the claimed features as presented in independent claims 30 and 58, for example which include a lens system comprising from a camera side to an object side the lens system satisfied the following conditions satisfied : $.9 < f / \# < 1.1$, $.90 < RI < 1.00$, where $f / \#$ and RI are focused number and relative illumination respectively, both the $f / \#$ and the RI being obtained across a field of view at an image plane at the camera side having a diameter greater than or equal to 26 mm , and both the $f / \#$ and RI being obtained for demagnifications of 1.25 through 10x (as in claim 30) ; an image system for capturing an image of a sample, the image system comprising : an imaging box designed to prevent most light from an entering inside compartment of the box in which an object to be imaged may be placed, a lens system integrated within the imaging box through which light emitted from the object to be imaged passes and a detector for receiving the emitted light and generating an image of the object (as in claim 53).

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The closest prior art

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Lee (5,801,1886) discloses an image magnification apparatus for use in a video display system that displays of an image of an object, comprising a connecting the image magnifying apparatus to a lens module of the video display system and an objective lens system for forming an optical image of the object.

Chen (2002/0094202) discloses a camera device with multiple lens units having a function of changing focus automatically comprises: a camera unit with multiple lens unit, an image display screen and image control circuit.

Suzuki (6,359,649 B1) discloses video camera integrated with still camera.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammed Hasan whose telephone number is (703) 306-0089. The examiner can normally be reached on M-TH, 7:00 AM to 5:30 PM.

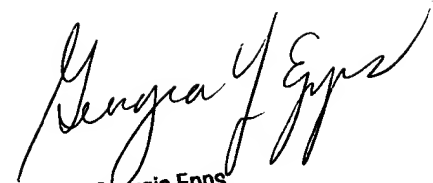
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on (703) 308-4883. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7724 for regular communications and (703) 306-5515 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

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August 18, 2003


Georgia Epps
Supervisory Patent Examiner
Technology Center 2800